REMARKS

In the February 13, 2006 Final Office Action, claims 1-13 and 24-46 were rejected based on 35 U.S.C. Sec. 112, 102, and 103. On March 22, 2006, a telephonic interview was held between the Examiner and Applicants' representative to discuss the rejections. In a Response to the Final Office Action, filed March 29, 2006, the claims were amended as per the telephone interview. In an Advisory Action dated April 12, 2006, the Examiner indicated that the amendments to the claims overcame the Sec. 112 and 102 rejections of the Final Office Action but presented new issues requiring further search. In addition, the Examiner stated that it was unclear as to whether the amendments overcome the Sec. 103 rejection and indicated that, for purposes of appeal, the amendments had not been entered. Accordingly, this Response amends claims 1, 12, 24, 30, 31, 34, 35, 38, 40, and 41. After entry of the foregoing amendments, claims 1-13 and 24-46 (36 total claims; 3 independent claims) remain pending in the application.

In the Final Office Action of February 13, 2006, the Examiner rejected claims 1-11, 13, 24-29, 31-33, and 42-46 as unpatentable under 35 U.S.C. § 103 over U.S. Patent No. 4,315,383, issued on February 16, 1982 to Day (hereinafter "Day") in view of U.S. Patent No. 6,196,907, issued on March 6, 2001 to Kahn (hereinafter "Kahn"). In light of the above amendments, this rejection is respectfully traversed.

For a claim to be properly rejected for obviousness, the Examiner must show that the subject matter sought to be patented would have been obvious to one of ordinary skill in the art at the time the invention was made. Applicants respectfully submit that a *prima facie* case of obviousness has not been made out by the Examiner because every critical element appearing in the claims is not disclosed by the cited reference.

Independent claim 1 of the instant application is directed to an apparatus for abrading a work piece. The apparatus comprises a base and two support members that are physically coupled to the base and lie in a plane. A carriage member is coupled to the base and slidably mounted to the two support members. The carriage member is coupled to the base only by the two support members. At least one vertical drive mechanism is configured to reciprocate the carriage member in a vertical direction along the two support members. A spindle is rotationally mounted to the carriage member and is configured to rotate about a central axis. The spindle has a channel disposed longitudinally therethrough and is disposed outside of and

substantially parallel to the plane. An upper abrading wheel has a first working surface and comprises a plurality of first conduits, each having a first orifice and a second orifice. The first orifice of each of the plurality of first conduits is disposed at the first working surface and the second orifice of each of the plurality of first conduits is in fluid communication with the longitudinal channel of the spindle. A lower abrading wheel has a second working surface that is disposed parallel to and in vertical opposition to the first working surface of the upper abrading wheel.

Independent claim 24 of the application also is directed to an apparatus for abrading a work piece. The apparatus comprises a base and two support members fixedly attached to the base and extending vertically from the base. The two support members lie in a plane. A carriage member is coupled to the base, is slidably mounted to the two support members, and at least partially extends in a direction substantially perpendicular to the plane. The carriage member is coupled to the base only by the two support members. The apparatus further comprises at least one vertical drive means for reciprocating the carriage member vertically along at least one of the two support members. A spindle is supported by the carriage member and is disposed outside of and substantially parallel to the plane. The spindle is configured to rotate about a central axis and has a longitudinal channel that is configured to receive a fluid. A rotary drive means rotates the spindle about the central axis. A lower abrading wheel assembly is disposed partially within the base and comprises a lower abrading wheel with a first working surface. An upper abrading wheel assembly comprises an upper abrading wheel having a second working surface. The second working surface of the upper abrading wheel is disposed parallel to and in vertical opposition to the first working surface of the lower abrading wheel. The upper abrading wheel assembly comprises a fluid distribution system in fluid communication with the longitudinal channel of the spindle and is configured to distribute a fluid to the second working surface.

Independent claim 34 also is directed to an apparatus for abrading a work piece. The apparatus comprises a base and two support members physically coupled to the base. The two support members lie in a plane. A carriage member is coupled to the base and is slidably mounted to the two support members. The carriage member is coupled to the base only by the two support members. At least one vertical drive mechanism is configured to reciprocate the carriage assembly in a vertical direction along the two support members. A spindle is

rotationally mounted to the carriage member and is disposed outside of and substantially parallel to the plane. The spindle is configured to rotate about a central axis. An upper abrading wheel assembly is coupled to the spindle and comprises an upper abrading wheel having a first working surface. A lower abrading wheel has a second working surface that is disposed parallel to and in vertical opposition to the first working surface of the upper abrading wheel.

In contrast, neither Day nor Kahn discloses a carriage member slidably mounted to two support members, that is, members that support the carriage. Both Day and Kahn disclose only one support member that supports an upper housing or carriage and couples it to a base. Further, neither Day nor Kahn, nor a combination thereof, discloses two support members that lie in a plane that is substantially parallel to but which does not contain a rotational spindle.

Accordingly, since neither Day nor Kahn, nor a combination thereof, discloses at least the above-noted features of independent claims 1, 24, and 34, and hence claims 2-11, 13, 25-29, 31-33, and 42-46 that depend therefrom, they do not render obvious claims 1, 24, and 34, and claims 2-11, 13, 25-29, 31-33, and 42-46 that depend therefrom, and reconsideration and withdrawal of the § 103(a) rejection is therefore solicited.

In the Final Office Action of February 13, 2006, the Examiner also rejected claims 35, 38, and 40 as unpatentable under 35 U.S.C. § 103 over Day in view of U.S. Patent No. 5,595,529, issued on January 21, 1997 to Cesna et al. (hereinafter "Cesna"). In light of the above amendments, this rejection is respectfully traversed.

Claims 35, 38, and 40 depend from independent claim 34. As described above, claim 34 is directed to an apparatus for abrading a work piece. The apparatus comprises a base and two support members physically coupled to the base. The two support members lie in a plane. A carriage member is coupled to the base and is slidably mounted to the two support members. The carriage member is coupled to the base only by the two support members. At least one vertical drive mechanism is configured to reciprocate the carriage assembly in a vertical direction along the two support members. A spindle is rotationally mounted to the carriage member and is disposed outside of and substantially parallel to the plane. The spindle is configured to rotate about a central axis. An upper abrading wheel assembly is coupled to the spindle and comprises an upper abrading wheel having a first working surface.

A lower abrading wheel has a second working surface that is disposed parallel to and in vertical opposition to the first working surface of the upper abrading wheel.

As described above, Day does not disclose an apparatus for abrading a work piece that comprises a base, two support members physically coupled to the base, and a carriage member that is slidably mounted to the two support members and is coupled to the base only by the two support members. Further, while Cesna discloses two upright hollow standards 26 that support bridge 18 (Col. 9, lines 25-31), the bridge is not coupled to the base only by standards 26 but also by shaft 86 (Fig. 1). In addition, neither Day nor Cesna discloses two support members that lie in a plane that is parallel to but does not contain a rotational spindle.

Accordingly, since neither Day nor Cesna, nor a combination thereof, discloses at least the above-noted features of claim 34, and hence claims 35, 38, and 40 that depend therefrom, they do not render obvious claims 35, 38, and 40, and reconsideration and withdrawal of the § 103(a) rejection is therefore solicited.

In the Final Office Action, the Examiner also rejected claims 12 and 30 as unpatentable under 35 U.S.C. § 103 over Day in view of Kahn and further in view of Cesna. Claim 12 depends from independent claim 1 and claim 30 depends from independent claim 24. For the same reasons described above, Day, Kahn, and Cesna, either alone or in combination, do not disclose all of the elements of claim 1 or claim 24. Day, Kahn, and Cesna, either alone or in combination, do not disclose an apparatus for abrading a work piece that comprises a base, two support members physically coupled to the base, and a carriage member that is slidably mounted to the two support members and is coupled to the base only by the two support members. In addition, Day, Kahn, and Cesna, either alone or in combination, do not disclose two support members that lie in a plane that is parallel to but does not contain a rotational spindle. Accordingly, a combination of Day, Kahn, and Cesna does not render obvious claims 1 and 24, and hence claims 12, and 30, and reconsideration and withdrawal of the § 103(a) rejection is therefore solicited.

CONCLUSION

In view of Applicants' amendments and remarks, it is respectfully submitted that the Examiner's rejections under 35 U.S.C. § 103(a) have been overcome. Accordingly, Applicants respectfully submit that the application, as amended, is now in condition for

allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants' attorneys at the below-listed number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

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By: Deborah Henscheid

Deborah Henscheid
Reg. No. 35,940
Ingrassia Fisher & Lorenz, PC
Customer No. 29906
(480) 385-5060